



GigaWaM demonstrator: A low cost, flexible and scalable WDM-PON access network

Iglesias Olmedo, Miguel

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workInnova

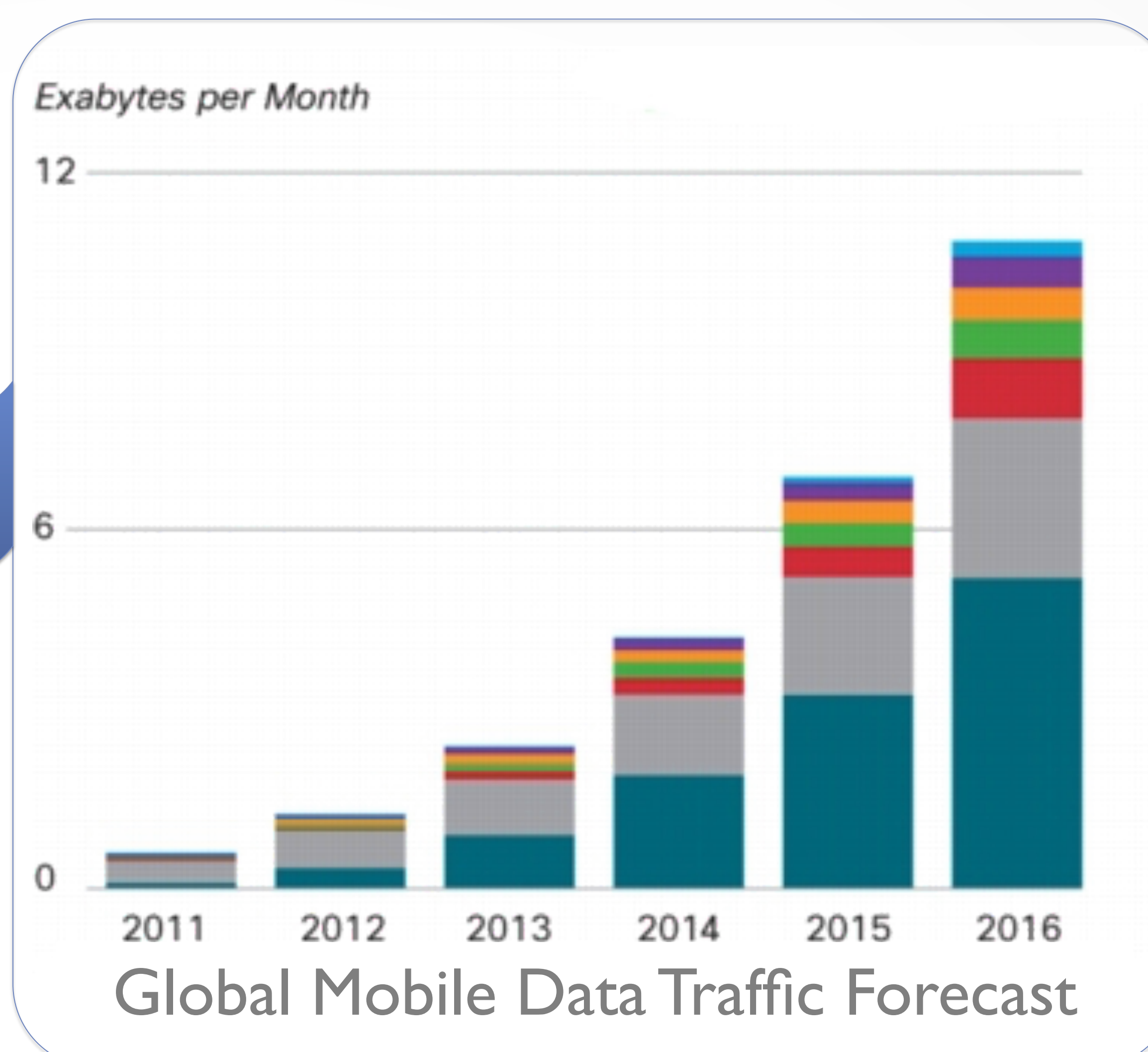
GigaWaM demonstrator:

A low cost, flexible and scalable WDM-PON access network

A number of companies

Realized an **exa**-problem

In 2008



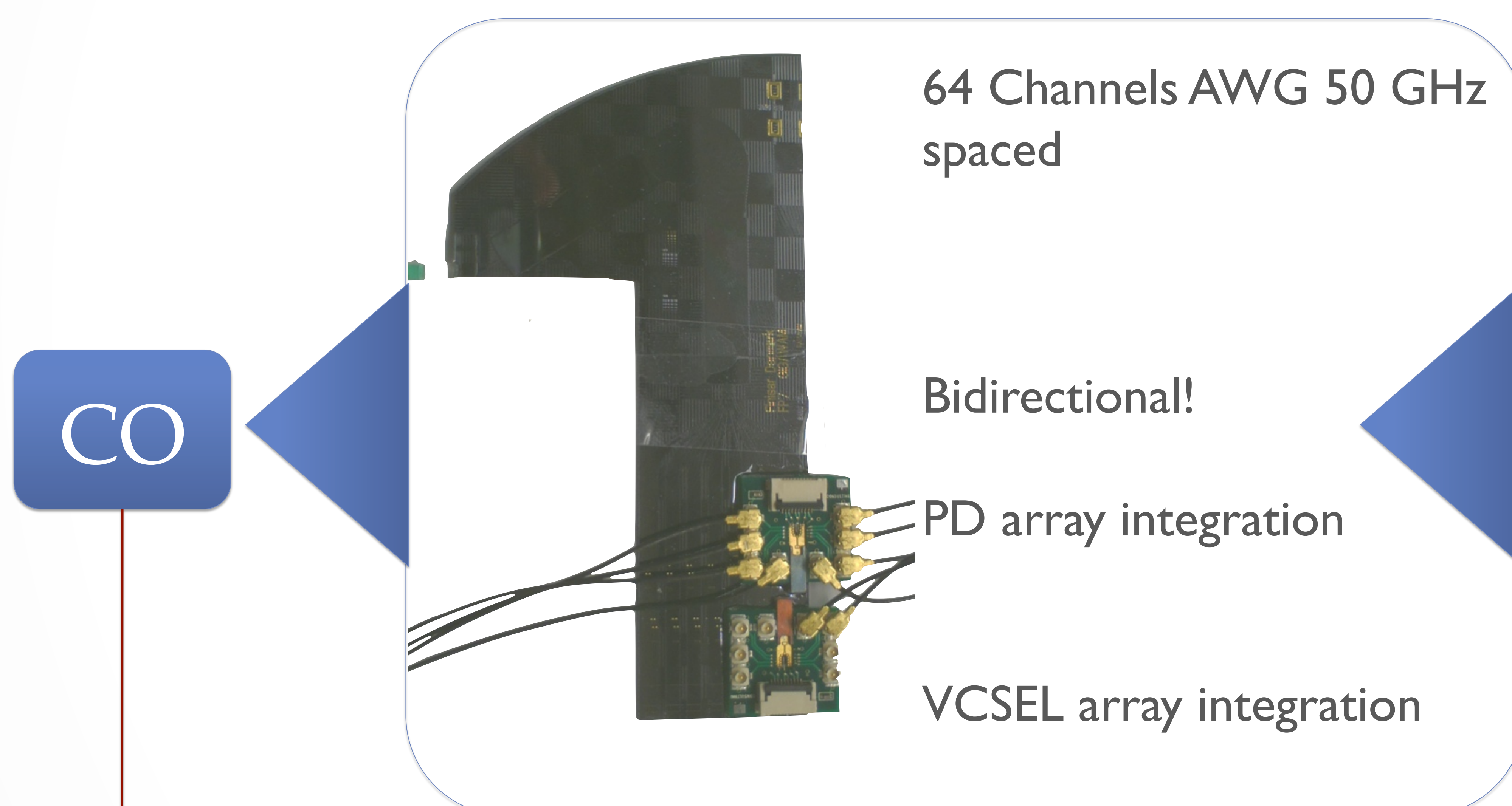
And commit to **achieve**

1.25 Gbps

and

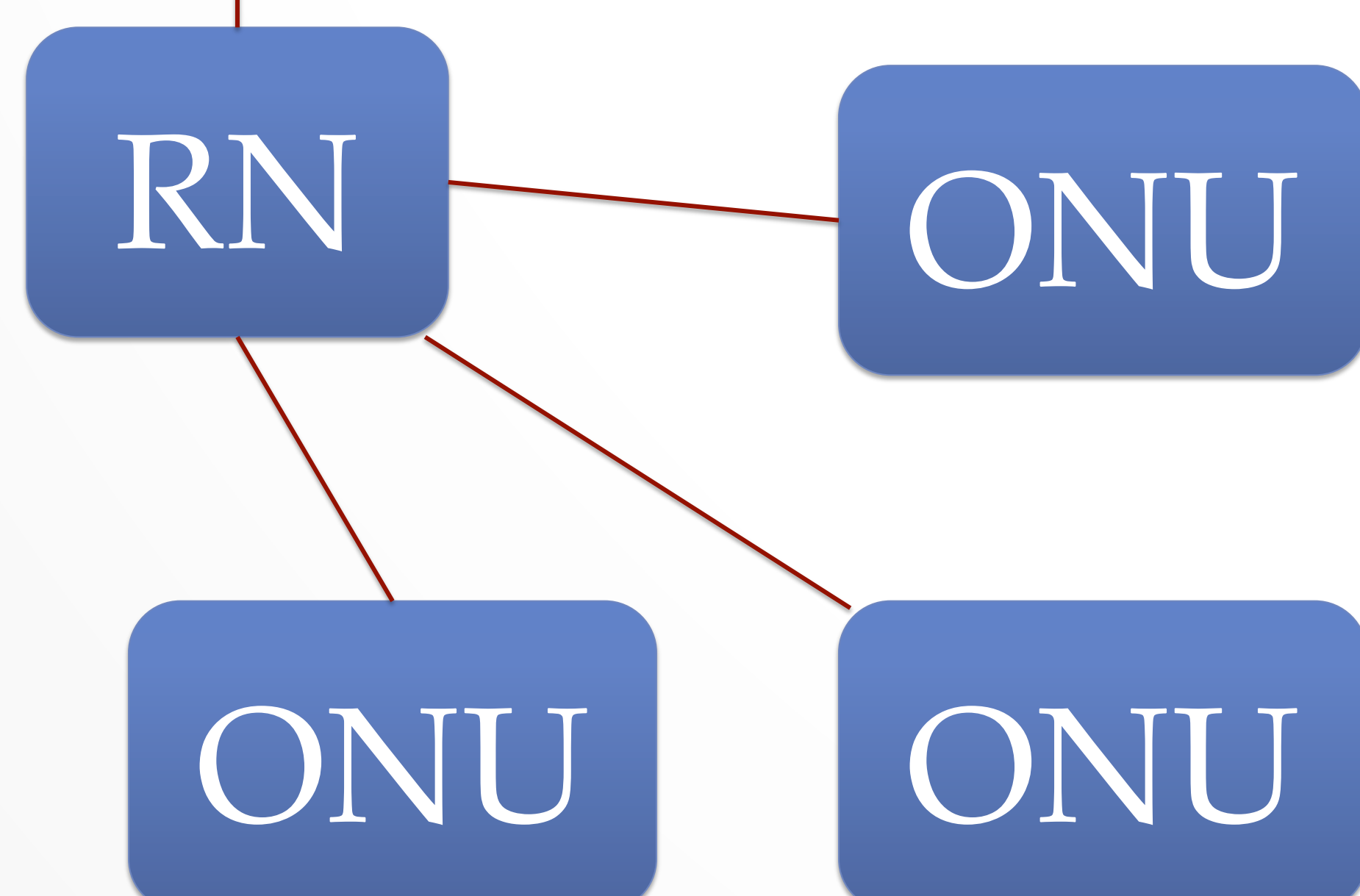


For the end-user

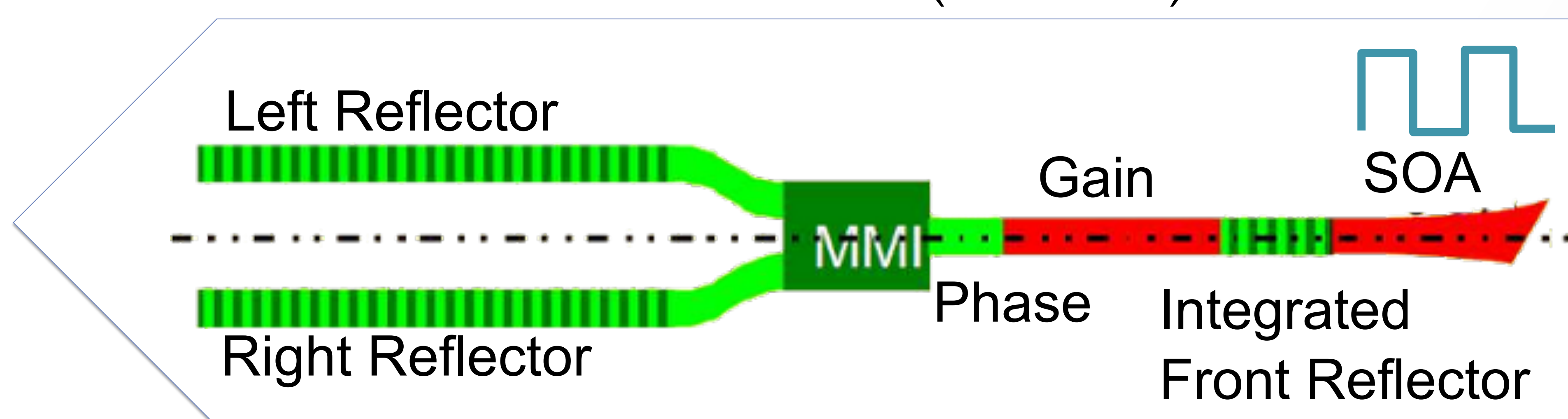


HOW?

1. Using WDM-PON for access
2. Integrating all optical components
3. Hybridizing electronics with optics.



Tunable laser at ONU (MGYSOA)



Results

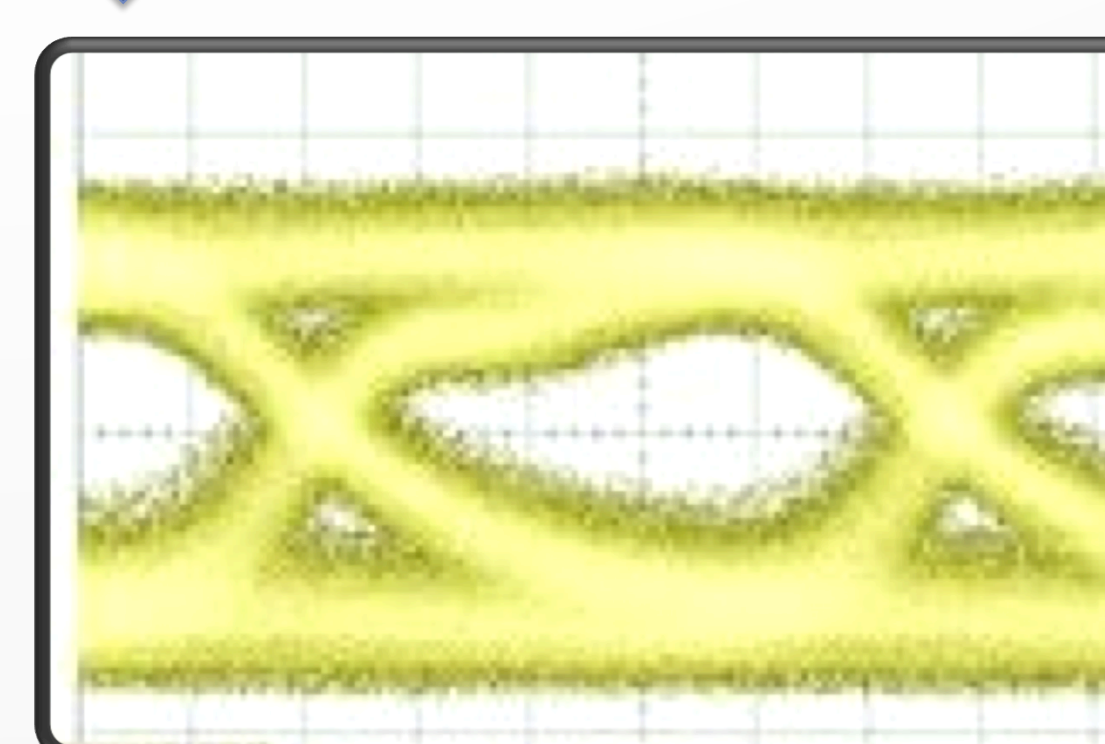
Challenge

How to overcome wavelength drifts due to temperature oscillations? Optical wavelength locking is too expensive!

Solution

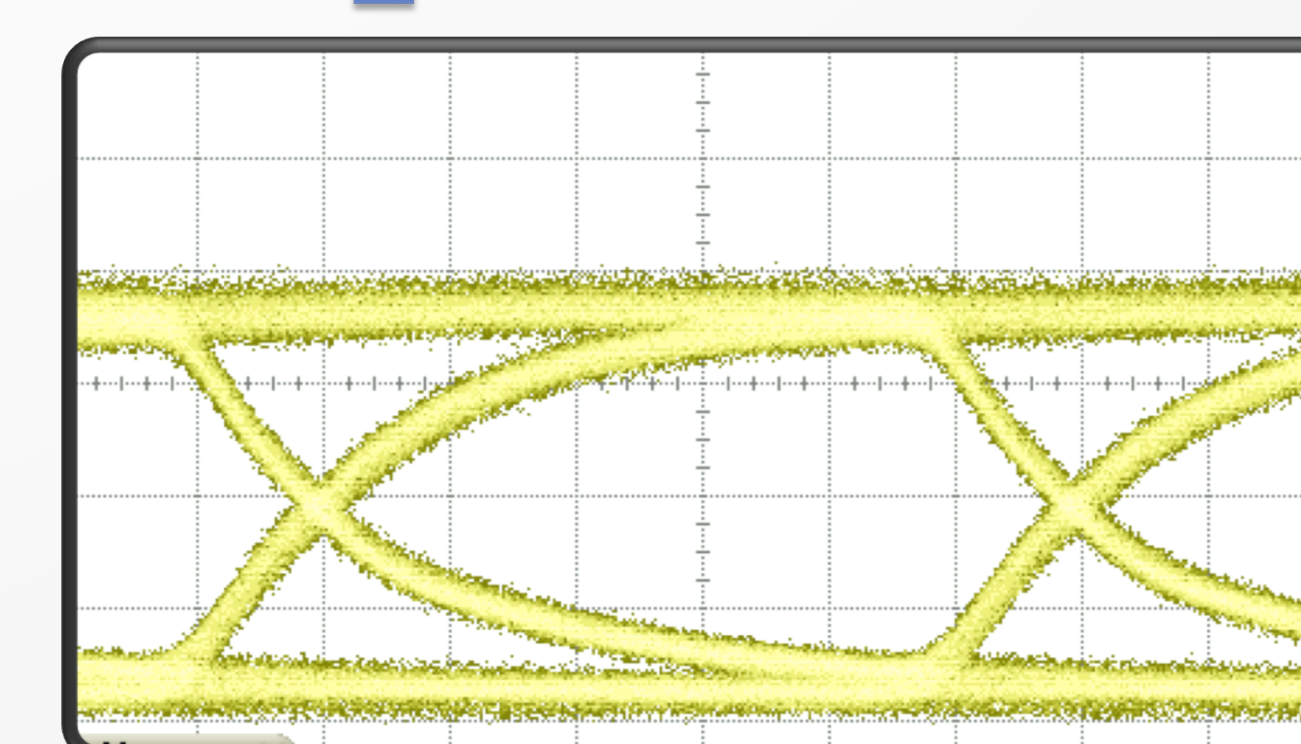
Real time centralized algorithms for wavelength locking both at ONU and CO!

↓ Downstream



4 Gbps, 5 dB ext ratio

↑ Upstream



2.5 Gbps, 4 dB ext ratio